

From: [Hodgson, Rich](#)
To: [Potter, Dolly](#)
Subject: RE: Calciner BACT
Date: Tuesday, January 29, 2002 3:03:02 PM

Dolly,

Answers my questions satisfactorily.

Rich

-----Original Message-----

From: Potter, Dolly
Sent: Tuesday, January 29, 2002 4:01 PM
To: Zolotoochin, Val
Cc: Hodgson, Rich; Hughes, Ron; Metziner, Jim; Phillip, Jim
Subject: RE: Calciner BACT

Val,

When I met with WDEQ last spring, they were not willing to give me a written confirmation that low-NO_x burners are BACT; that must be done through the permitting process. However, since it is generally accepted that stoker coal systems are **not** BACT, they may be willing to give me something written to that affect. I will give them a call.

Also, Rich asked for explanation of low-NO_x burners compared to stoker coal systems. When fired on stoker coal, CA-1 and CA-2 were permitted at 0.7 lb NO_x/MMBtu (same as the boilers). The emission rates for the low-NO_x coal burners identified in the EPA BACT Clearinghouse range from 0.2 to 0.4 lb NO_x/MMBtu. Although not specifically stated, I assume these burners utilize pulverized coal.

Dolly

Dolly A. Potter
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-----Original Message-----

From: Zolotoochin, Val
Sent: Tuesday, January 29, 2002 1:30 PM
To: Potter, Dolly
Subject: RE: Calciner BACT

Hi Dolly:

Do you think we can get a letter from Wyoming DEQ stating approximately the same ?

SOLVAY2016_1.3_001156

Val

-----Original Message-----

From: Potter, Dolly

Sent: Tuesday, January 29, 2002 2:18 PM

To: Zolotoochin, Val

Cc: Metziner, Jim; Phillip, Jim; Hodgson, Rich; Hughes, Ron

Subject: Calciner BACT

Val,

Rich said DCRT may need more explanation concerning air permitting requirements to convert calciners back to coal. NO_x emissions are only part of the issue, meeting BACT is the biggest hurdle. Here is some additional information that may help, and we can talk more when you are here later this week.

The option to burn coal in the calciners was analyzed in Phase 1 of the gas-to-coal project, completed early in 2001. Review of the WDEQ and EPA permitting requirements was done, which included pulverized coal, stoker coal, etc. Based on BACT requirements, which must be met in Wyoming, low-NO_x coal burners with "good combustion practices" were found to be BACT. WDEQ has verbally agreed with this determination.

The option to modify the boilers to get a NO_x emission offset for burning coal in the calciners would not relieve us of the BACT requirement. In the state of Wyoming, regardless of whether or not a facility has emission offsets, a BACT analysis is required for any modification. Having offsets does lessen some of the permitting requirements (mainly dispersion modeling), but does not solve the BACT issue on the calciners. So, we would still be required to install low-NO_x coal burners.

Determining BACT (Best Available Control Technology) is a process. The first step is to research EPA's BACT clearinghouse, which is a 10-year compilation of records of control equipment that has been installed in similar applications (trona, lime, cement kilns, etc). Stoker coal was not listed as an option. Starting with the technology with the lowest emission rate, it must be determined if that technology is "technically feasible". For instance, consider urea injection, the reaction takes place best at about 1,600°F. Since our off-gas temperature is around 350°F, this technology is not considered to be technically feasible. When the "technically **infeasible**" technologies have been eliminated, the remaining technologies are considered for

"economically reasonable". This is based on cost-to-control per ton of emission.

Let me know what else you need, and I'll plan to see you at MSHA training on Friday.

Dolly

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